

Claims

1. (previously presented) In a design tool, a method comprising:
displaying in a Gantt chart a top-level schedule for a design that includes one or more loops;
displaying a first loop schedule for a first loop of the one or more loops, wherein control step timing within the first loop schedule is presented relative to the first loop schedule; and
displaying a second loop schedule for a second loop of the one or more loops, wherein control step timing within the second loop schedule is presented relative to the second loop schedule.
2. (original) The method of claim 1 wherein the displaying the first loop schedule hierarchically nests the first loop schedule within the top-level schedule.
3. (original) The method of claim 1 wherein each of the top-level schedule and the first loop schedule includes an independently numbered set of control steps.
4. (original) The method of claim 3 wherein the first loop schedule begins with a control step 0 for non-real operations of the first loop schedule that execute in a clock cycle for a control step of the top-level loop schedule.
5. (previously presented) The method of claim 1 wherein before the displaying the first loop schedule, the top-level schedule includes an icon summarizing the first loop schedule, and wherein control step timing within the top-level schedule is presented as independent of latency of the first loop schedule.
6. (original) The method of claim 1 further comprising:
hiding the first loop schedule responsive to a command from a designer.
7. (original) The method of claim 1 further comprising:
displaying a textual list of scheduled operations; and

displaying an icon adjacent a first loop label in the textual list, the icon indicating whether the first loop schedule is expanded or collapsed.

8. (canceled)

9. (original) The method of claim 1 wherein the Gantt chart includes at least one pseudo-operation icon.

10. (previously presented) The method of claim 1 wherein the first loop includes plural alternative branches of execution having different lengths.

11. (original) The method of claim 1 wherein the design tool is a behavioral synthesis tool.

12. (original) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform the method of claim 1.

13. (currently amended) In a design tool, a method of presenting information for a design, the method comprising:

presenting in a Gantt chart first information for a block of a design, the block including a sub-block that includes a number of timing steps, wherein the block is for a top-level loop, wherein the top-level loop includes a nested loop, and wherein the sub-block is for the nested loop; and

presenting second information for the sub-block of the design, wherein timing for the block is presented as independent of the number of timing steps of the sub-block, wherein before the presenting the second information, the first information includes an icon summarizing the second information, and wherein the timing for the block is presented as independent of latency of the sub-block, wherein the timing steps of the sub-block are control steps, and wherein each of the block and the sub-block includes an independently numbered set of control steps.

14. (canceled)

KBR:kbr 04/28/06 521088.doc
PATENT

Attorney Reference Number 1011-57071-01
Application Number 09/919,650

15. (original) The method of claim 13 wherein the sub-block is for one of plural alternative branches of execution within the block.

16. (original) The method of claim 13 wherein the first information is a block schedule and the second information is a sub-block schedule.

17. (canceled)

18. (previously presented) The method of claim 13 wherein the icon appears in a clock overhead space of a timing step of a block schedule.

19. (original) The method of claim 13 wherein timing within the sub-block is presented relative to the sub-block.

20. (canceled)

21. (original) The method of claim 13 wherein the presenting the second information nests the second information within the first information.

22. (previously presented) The method of claim 13 wherein the second information is presented in a separate window.

23. (previously presented) The method of claim 13 further comprising:
presenting a list of operation labels including one or more sub-block operation labels indented relative to one or more block operation labels in the list.

24. (previously presented) The method of claim 13 further comprising:
presenting third information for a second sub-block of the design, wherein the second sub-block includes a second number of timing steps, and wherein timing for the block is presented as independent of second number of timing steps.

25. (original) The method of claim 13 wherein the design tool is a behavioral synthesis tool.

26. (original) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform the method of claim 13.

27. (currently amended) In a design tool, a method of presenting a hierarchical Gantt chart, the method comprising:

presenting plural nested schedules for a design, the plural nested schedules including a top-level schedule and a first loop schedule, each of the plural nested schedules including:

a line of control step labels, wherein each of the plural nested schedules includes an independently numbered set of control steps, wherein control step timing within the top-level schedule is presented relative to the top-level schedule, and wherein control step timing within the first loop schedule is presented relative to the first loop schedule; and

one or more lines of schedule information including at least one operation icon.

28. (currently amended) The method of claim 27 ~~wherein the plural nested schedules include a top-level schedule, and~~ wherein presentation of each of the plural nested schedules other than the top-level schedule is in a clock overhead space of a control step of the schedule enclosing the nested schedule.

29. (previously presented) The method of claim 27 wherein presentation of each of the plural nested schedules expands or collapses responsive to designer input.

30. (previously presented) The method of claim 27 wherein the design tool is a behavioral synthesis tool.

31.-41. (canceled)

KBR:KHR 04/28/06 521088.doc
PATENT

Attorney Reference Number 1011-57071-01
Application Number 09/919,650

42. (previously presented) The method of claim 1 wherein the design tool is an electronic circuit design tool or system design tool, and wherein the design is an electronic circuit design or system design.

43. (previously presented) The method of claim 13 wherein the design tool is an electronic circuit design tool or system design tool, and wherein the design is an electronic circuit design or system design.

44. (previously presented) The method of claim 13 wherein the timing for the block is presented as independent in that the second information is presented within a single timing step of the block regardless of the number of timing steps of the sub-block.

45. (previously presented) The method of claim 44 wherein the timing steps of the sub-block are presented within the single timing step of the block.

46. (previously presented) The method of claim 13 wherein the icon is presented in a scheduling frame that shows allowable locations of a sub-block schedule within a block schedule.

47. (previously presented) The method of claim 27 wherein the design tool is an electronic circuit design tool or system design tool, and wherein the design is an electronic circuit design or system design.

48. (previously presented) The method of claim 27 wherein the at least one operation icon each represents a scheduled operation.

49. (previously presented) The method of claim 1 wherein the second loop is nested within the first loop.

50. (previously presented) The method of claim 13 wherein the sub-block includes a sub-sub-block, the method further comprising:

presenting third information for the sub-sub-block, wherein the sub-sub-block includes a second number of timing steps, and wherein timing for the sub-block is presented as independent of second number of timing steps.

51. (previously presented) In a design tool, a method comprising:
displaying in a Gantt chart a top-level schedule for a design that includes one or more loops; and
displaying a first loop schedule for a first loop of the one or more loops, wherein control step timing within the first loop schedule is presented relative to the first loop schedule;
wherein each of the top-level schedule and the first loop schedule includes an independently numbered set of control steps.

52. (previously presented) The method of claim 51 wherein the displaying the first loop schedule hierarchically nests the first loop schedule within the top-level schedule.

53. (previously presented) The method of claim 51 wherein the first loop schedule begins with a control step 0 for non-real operations of the first loop schedule that execute in a clock cycle for a control step of the top-level loop schedule.

54. (previously presented) The method of claim 51 wherein before the displaying the first loop schedule, the top-level schedule includes an icon summarizing the first loop schedule, and wherein control step timing within the top-level schedule is presented as independent of latency of the first loop schedule.

55. (previously presented) The method of claim 51 further comprising:
hiding the first loop schedule responsive to a command from a designer.

56. (previously presented) The method of claim 51 further comprising:
displaying a textual list of scheduled operations; and
displaying an icon adjacent a first loop label in the textual list, the icon indicating whether the first loop schedule is expanded or collapsed.

57. (previously presented) The method of claim 51 wherein the Gantt chart includes at least one pseudo-operation icon.

58. (previously presented) The method of claim 51 wherein the first loop includes plural alternative branches of execution having different lengths.

59. (previously presented) The method of claim 51 wherein the design tool is a behavioral synthesis tool.

60. (previously presented) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform the method of claim 51.

61. (previously presented) In a design tool, a method comprising:
displaying in a Gantt chart a top-level schedule for a design that includes one or more loops; and
displaying a first loop schedule for a first loop of the one or more loops, wherein control step timing within the first loop schedule is presented relative to the first loop schedule, wherein before the displaying the first loop schedule the top-level schedule includes an icon summarizing the first loop schedule, and wherein control step timing within the top-level schedule is presented as independent of latency of the first loop schedule.

62. (previously presented) The method of claim 61 wherein the displaying the first loop schedule hierarchically nests the first loop schedule within the top-level schedule.

63. (previously presented) The method of claim 61 further comprising:
hiding the first loop schedule responsive to a command from a designer.

64. (previously presented) The method of claim 61 further comprising:
displaying a textual list of scheduled operations; and

displaying an icon adjacent a first loop label in the textual list, the icon indicating whether the first loop schedule is expanded or collapsed.

65. (previously presented) The method of claim 61 wherein the Gantt chart includes at least one pseudo-operation icon.

66. (previously presented) The method of claim 61 wherein the first loop includes plural alternative branches of execution having different lengths.

67. (previously presented) The method of claim 61 wherein the design tool is a behavioral synthesis tool.

68. (previously presented) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform the method of claim 61.

69. (currently amended) In a design tool, a method comprising:
displaying in a Gantt chart a top-level schedule for a design that includes one or more loops; and
displaying a first loop schedule for a first loop of the one or more loops, wherein control step timing within the first loop schedule is presented relative to the first loop schedule and presented as being independent of overall timing of the Gantt chart, and wherein control step timing within the top-level schedule is presented relative to the top-level schedule.

70. (previously presented) The method of claim 69 wherein the displaying the first loop schedule hierarchically nests the first loop schedule within the top-level schedule.

71. (previously presented) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform the method of claim 69.